

REMARKS

Amendments to the Specification

The Applicant has carefully reviewed the rejections raised in the Final Office Action dated May 21, 2008. As a result, the application has been amended to comply with the Examiner's requirements, as outlined herebelow.

With reference to the other rejections under 35 USC §112, claim 8 has been amended to clearly and explicitly define "that temperature" questioned by the Examiner. In view of this amendment, the rejection of claim 9 depending from claim 8 has also been rendered moot.

On page 1 of the Action, the Examiner has indicated that claims 1 to 4 have been withdrawn from consideration. In order to expedite the prosecution of the application, claims 1 to 4 are being cancelled from the application. It is respectfully submitted that the Applicant retains the right to pursue these cancelled claims by way of a divisional application.

Furthermore, the Applicant hereby amends claim 5 to more particularly and distinctly recite the present invention. Specifically, the pre-sintering step (c) in claim 5 has been amended to more explicitly recite that the powder is heated to a temperature between the glass transition temperature/glass softening temperature and the crystallization temperature, and then held steady at that temperature for a period of time. Accordingly, claim 5, as amended, now read:

“c) pre-sintering the packed amorphous inorganic powder by heating said powder to a temperature greater than the glass transition temperature and the glass softening temperature and less than the crystallization temperature and holding steady at said temperature for an appropriate period of time to produce a pre-sintered amorphous inorganic body;”

It is respectfully submitted that support for these amendments to claim 5 can be found throughout the application as originally filed. For example, the paragraph starting at page 27, lines 9-14 and the paragraph starting at page 37, lines 4-10 describes the processing schedule for forming CPP samples of the present invention, where the pre-sintering process is referred to as:

“heat @ 5°C/min to 585°C (Stage 1 sinter temperature),
hold @585°C for 1hr”

which is followed by the final sintering step of “heat @ 10°C/min to between 700 and 950°C + hold @ this temperature (Final sinter temperature) for 1 hr”.

Therefore, Applicants respectfully submit that these passages clearly disclose that the sintering process involves holding the temperature steady at a first temperature for a pre-selected period of time before the final sintering step.

The Summary of Invention in the description has been amended to reflect the amendments to the independent claim.

Applicants respectfully submit that the amendments made herein are to more clearly and concisely recite the present invention. All the amendments are supported by the application as originally filed, and therefore no new matter has been added by the amendments.

Patentability of Claims over Cited References

In the Final Action, claims 28, 30-34, 40, 43 and claim 81 have been deemed as allowable, for which the Applicant thank the Examiner.

The remaining pending claims have been rejected under 35 U.S.C. 102(b) or under 35 U.S.C. 103(a). Specifically, claims 5-14 and 29 have been deemed as being anticipated by Filaggi et al.; and claims 15-27, 35-39, 41-42 and 44-46 have been deemed as being obvious over Filaggi et al. in view of Kandel et al.

The Examiner is respectfully requested to withdrawn these rejections in view of the above-mentioned claim amendments and the following discussion.

As set forth above, claim 5 has been amended to more explicitly recite that the packed amorphous inorganic powder is pre-sintered;

“by heating the powder to a temperature greater than the glass transition temperature and the glass softening temperature and less than the crystallization temperature and **holding steady said temperature** for

an appropriate period of time to produce a pre-sintered amorphous inorganic body”.

This stage-1 sinter treatment allows for substantial interparticle sinter neck formation during this hold time.

In contrast, there is nothing in Filliaggi et al. which teaches or suggests this feature recited in the amended claim 5. It is to be noted that the method in Filliaggi starts heating the CPP from a temperature of about 500°C at a given rate to a final sintering temperature of 950°C, at which temperature is held for 2 hours. However, there is no disclosure of holding the temperature steady for any period of time between the glass transition temperature/glass softening temperature and the crystallization temperature. In other words, Filliaggi et al. does not specify the need for holding the temperature steady at the stage-1 pre-sintering step, prior to increasing the temperature to the final stage-2 sinter treatment that allows crystallization of the amorphous CPP.


In view of the foregoing discussion, it is respectfully submitted that the subject matter of claim 5, as amended, is new and inventive over the cited reference Filliaggi et al. Since claim 5 is new and inventive, it is also respectfully submitted that the remaining dependent claims which stand rejected should also be deemed as new and inventive over Filliaggi, either alone or in combination with the secondary reference, Kandel et al.

Furthermore, submitted herewith a Declaration by one of the Applicants, Robert M. Pilliar, who was also a co-inventor for the cited reference Filiaggi et al. The Declaration attests to the fact that this Applicant's earlier work, Filiaggi et al., does not disclose a 2-step sintering process whereby samples are held at a steady temperature during the step-1 sinter treatment.

An earnest effort has been made to place this application in condition for allowance which action is respectfully solicited.

Should the Examiner have any questions regarding the allowability of the claims with respect to the art, it would be appreciated if the Examiner would contact the undersigned attorney-of-record at the telephone number shown below for further expediting the prosecution of the application.

Respectfully Submitted;


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